IN THE U.S. PATENT AND TRADEMARK OFFICE

Application No.:   09/764,708

Filing Date: January 18, 2001

Applicant: Katherine G. AUGUST

Group Art Unit: 2614

Examiner: Joseph T. Phan

Title: NETWORK PROVIDED INFORMATION USING TEXT-TO-SPEECH AND SPEECH RECOGNITION AND TEXT OR SPEECH ACTIVATED NETWORK CONTROL SEQUENCES FOR COMPLIMENTARY FEATURE ACCESS

Attorney Docket No.:   129250-002049/US

APPLICANT'S/APPELLANT'S BRIEF ON APPEAL (Corrected)

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APPELLANTS' BRIEF ON APPEAL

I.   REAL PARTY IN INTEREST:

The real party in interest in this appeal is Lucent Technologies Inc. Assignment of the application was submitted to the U.S. Patent and Trademark Office and recorded at Reel 011853, Frame 0222.

II.   RELATED APPEALS AND INTERFERENCES:

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

III.   STATUS OF CLAIMS:

Claims 1-15, 17-32 and 34 are pending in the application, with claims 1 and 18 being written in independent form.

Claims 1-15, 17-32 and 34 remain finally rejected under 35 U.S.C. §102(e) based on U.S. Patent No. 5,719,921 to Vysotsky ("Vysotsky"). Claims 1-15, 17-32 and 34 are being appealed.

IV.   STATUS OF AMENDMENTS:

A Request for Reconsideration ("Request") was filed on January 19, 2007. In an Advisory Action dated February 21, 2007 the Examiner stated that the Request was considered but was not entered because it allegedly required "further search and consideration". On September 7, 2007 the Examiner mailed an additional office Action entitled "Notice of Non-Compliant Appeal Brief". This corrected brief responds to that Office Action as well the Examiner's earlier Office Actions.

V.   **SUMMARY OF CLAIMED SUBJECT MATTER:**

(i).   **Overview of the Subject Matter of the Independent Claims**

The present invention is directed at methods and systems for permitting a subscriber to perform an action (i.e., feature) available on a communications network using a spoken utterance that includes an "always connected state" in which a feature may be accessed even when a call is not in progress. More specifically, independent claim 1 reads as follows (specification citations follow in parenthesis):

1.   A method for permitting a subscriber to perform an action available on a communications network using a spoken utterance, comprising:
maintaining a system state database (page 15, line 22 to page 16, line 4) **comprising a tree structure having a plurality of nodes, each respective node of said plurality of nodes representing a particular system state of a plurality of possible system states, each state comprising a plurality of possible steps in a call flow** (page 15, lines 16-19; page 16, line 7 to page 17, line 19), **including an always connected state in which a feature may be accessed even when a call is not in progress and being associated with a predetermined node-specific grammar for the respective node** (page 20, lines 8-13);
awaiting from the subscriber a spoken utterance at the particular system state(page 15, lines 1-13; page 18, line 4 to page 19, line 3);
recognizing the spoken utterance by comparing the spoken utterance to the predetermined grammar for the respective node for correspondence to the particular system state(page 23, line 11 to page 24 line 10; page 29, line 3)**; and**
performing an action at the network represented by the spoken utterance when the spoken utterance has been recognized as the predetermined grammar for the respective node, wherein the action activates a control sequence at the network for accessing a feature available on the network (page 23, line 20 to page 24, line 14).

In addition, another exemplary overview of most of the elements of claim 1 can also be found on page 34, line 7 to page 35, line 8.

Independent claim 18 reads as follows:

18. A communications system providing speech recognition functionality to a network, comprising:
    a device coupled to the network and into which an utterance may be spoken by a user (page 12, lines 13-14)**,**
    a system state database (page 15, line 22 to page 16, line 4) **accessible to the network and defining a tree structure having a plurality of nodes, each respective node of said plural nodes representing a particular system state of a plurality of possible system states, each state comprising a plurality of possible steps in a call flow,** (page 15, lines 16-19; page 16, line 7 to page 17, line 19) **including an always connected state in which a feature may be accessed even when a call is not in progress and being associated with a predetermined node-specific grammar for the respective node** (page 20, lines 8-13)**;**
    means for interpreting the user-spoken utterance (page 15, lines 1-13; page 18, line 4 to page 19, line 3)**;**
    means for comparing the interpreted spoken utterance to the predetermined grammar for the respective node corresponding to the particular system state to recognize the spoken utterance as corresponding to the predetermined grammar associated with the respective node (page 23, line 11 to page 24 line 10; page 29, line 3)**; and**
    means for performing an action represented by the spoken utterance at the network when the spoken utterance has been recognized as corresponding to the predetermined grammar associated with the respective node, wherein the action activates a control sequence at the network for accessing a feature available on the network (page 23, line 20 to page 24, line 14).

In addition, another exemplary overview of most of the elements of claim 18 can also be found on page 34, line 7 to page 35, line 8.

The Appellant notes the Examiner's comments in the September 9, 2007 Office Action. In particular the Appellant notes the Examiner's statement

implying that the Appellant cannot rely upon the disclosure in the specification on page 20, lines 8-13 for the feature of "an always connected state".

The Appellant respectfully disagrees. On what basis does the Examiner believe that he can limit the Appellant's interpretation of the claims?

Further, a fair interpretation of the phrase "always connected state" is that it is one of a number of possible system states, each state comprising a plurality of possible steps in a call flow; not just an "always on network" as the Examiner states.

The exact citation from the specification is as follows:

> "Some of the various possible <u>call flows</u> and other
> <u>system states</u> which can be handled by the present
> invention are now discussed. FIG. 6A depicts one
> example of the steps <u>for a subscriber to change system states</u>.
> At step 260, the network <u>is in a state</u> where it is
> "Always on" and the phonies "on-hook" (for a phone)
> or "connected but not in use" for some other device.
> <u>In this state,</u> various actions may occur. For example,..."

From this citation it is clear that there is more than adequate support in the specification for the claimed "plurality of possible steps in a call flow, including an always connected state".

In order to make the overview set forth above concise the disclosure that has been included, or referred to, above only represents a portion of the total disclosure set forth in the Specification that supports the independent claims.

(ii). The Remainder of the Specification Also Supports the Claims

The Appellant notes that there may be additional disclosure in the Specification that also supports the independent and dependent claims. Further, by referring to the disclosure above the Appellant does not represent that this is the only evidence that supports the independent claims nor does

Appellant necessarily represent that this disclosure can be used to fully interpret the claims of the present invention. Instead, this disclosure is an overview of the claimed subject matter.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Appellant seeks the Board's review and reversal of the rejection of claims 1-15, 17-32 and 34 under 35 U.S.C. §102(e) based on Vysotsky.

VII. ARGUMENTS:

A.   The Section 102 Rejections

Claims 1-15, 17-32 and 34 were rejected under 35 U.S.C. §102(e) as being anticipated by Vysotsky. Appellant respectfully disagrees for at least the following reasons.

(i)   Claims 1-15, 17-32 and 34

Initially, the Appellant notes that she is somewhat confused by the Examiner's position. As set forth in the independent claims, the present inventions are directed at methods and systems for permitting a subscriber to perform an action (i.e., feature) available on a communications network using a spoken utterance that includes an "always connected state" in which a feature may be accessed even when a call is not in progress.

In the Final Office Action the Examiner appears to take the position that Vysotsky discloses such a feature. However, this is clearly not the case.

Throughout Vysotsky reference is made to a "call" that is in progress. For example, Vysotsky states: "The present invention has the advantage of permitting a customer to place a call by speaking a person's name which serves as a destination identifier without having to speak an additional command..." In sum, Vysotsky's speech recognition system allows a telephone number of a party to be dialed without entering the number; just by saying the name of the party/person. To initiate its speech recognition features, however, a call must

be initiated. See column 2, lines 49-56; "In the event that only a speaker dependent name is recognized, a call is placed to the phone number associated with the recognized name in the customer's personal directory. In this manner, a customer can place a call by simply speaking a name"; and see column 3, lines 35-40, "Accordingly, the method and apparatus of the present invention permits a user to place a call by speaking a name without the need to first speak a steering word"; yet further, see column 4, lines 11-15," Upon receiving the beep, the customer is expected to speak in order to, e.g., place a call".

As far as the Appellant can tell, Vysotsky is specifically aimed at the placement of a call using speech recognition. There appears to be no disclosure or suggestion that its features can be used without placing a call.

(ii)   Claims 6, 7 and 25

In these dependent claims, spoken utterances are recognized by comparing the utterances to a predetermined grammar, where the grammar may be in multiple languages. In the Final Office Action the Examiner takes the position that Vysotsky's "programming languages" are grammars.

The Appellant is unaware of any basis for such a statement. Simply stated, there is absolutely no basis for interpreting the word "grammar" in claims 6, 7 and 25 (and elsewhere) as being a programming language. As the specification points out, the word grammar denotes a spoken dialect, not computer code: "Males, females, children, and people from different backgrounds, parts of a country, ethnicity, etc. pronounce words differently", page 23, lines 1-2. The Appellant notes that although Examiners are instructed to interpret claims broadly, such interpretations must be consistent with the specification, *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000). In this instance, interpreting "grammar" to mean a programming language is inconsistent with the specification.

In sum, because Vysotsky does not disclose each and every feature of the present invention, it cannot be a basis for anticipation under §102(e).

B. **The Examiner's Comments Contained in the September 7, 2007 Office Action**

In the September 7, 2007 Office Action entitled "Non-Complaint Appeal Brief" the Examiner includes substantive comments regarding his earlier positions. To the extent the Examiner makes these comments as a way to seek a compromise from the Appellant, the Appellant appreciates the Examiner's comments. However, the Appellant notes that the Examiner's comments do not constitute an appropriate Answer to the Appellant's Appeal Brief. Without waiving its ability to respond, the Appellant respectfully declines to respond to the Examiner's positions at this time. Instead, upon the filing and mailing of an appropriate Examiner's Answer the Appellant will respond to the Examiner's positions.

Alternatively, if the Examiner wishes to re-open prosecution on the merits in this application the Applicant will respond to the Examiner's positions.

Conclusion:

Appellant respectfully requests that members of the Board reverse the decision of the Examiner and allow claims 1-15, 17-32 and 34.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1.   A method for permitting a subscriber to perform an action available on a communications network using a spoken utterance, comprising:

maintaining a system state database comprising a tree structure having a plurality of nodes, each respective node of said plurality of nodes representing a particular system state of a plurality of possible system states, each state comprising a plurality of possible steps in a call flow, including an always connected state in which a feature may be accessed even when a call is not in progress and being associated with a predetermined node-specific grammar for the respective node;

awaiting from the subscriber a spoken utterance at the particular system state;

recognizing the spoken utterance by comparing the spoken utterance to the predetermined grammar for the respective node for correspondence to the particular system state; and

performing an action at the network represented by the spoken utterance when the spoken utterance has been recognized as the predetermined grammar for the respective node, wherein the action activates a control sequence at the network for accessing a feature available on the network.

2.   The method of claim 1, further comprising, after recognizing the spoken utterance, converting the spoken utterance to electronically-readable data having a format recognizable by one of the network, and transmitting the converted data to the respective one of the network.

3.   The method of claim 1, wherein the spoken utterance comprises a command to access one of a plurality of available features on the network and a spoken menu of the available features.

4.   The method of claim 3, wherein the feature comprises one of a group consisting of call forwarding, hold, conferencing, voice-mail, call back, caller-ID, caller-ID related features and caller-ID related functions.

5.   The method of claim 1, wherein the node-specific grammar associated with each respective node comprises at least one of a group consisting of a word descriptive of the action to be performed, a synonym of the word, and a globally-available word available at all of said plural nodes.

6.   The method of claim 1, wherein the predetermined grammar for the particular node comprises grammar for multiple languages.

7.   The method of claim 6, wherein the spoken utterance of the subscriber is in one of the multiple languages, and the method further comprises the steps of:
determining the one of the multiple languages of the spoken utterance of the subscriber; and
communicating via the network with the subscriber via a text-to-speech translator that translates in the determined one language of the subscriber.

8.   The method of claim 1, further comprising determining a particular template to use for speech recognition from a plurality of predefined voice pattern templates, wherein the particular template comprises a subset of the predetermined grammar for the respective node, and wherein the step of recognizing the spoken utterance comprises comparing the spoken utterance to the predetermine subset of the predetermined grammar for the respective node.

9.   The method of claim 8, wherein the plurality of predefined voice pattern templates comprises independent templates for males, females, and children.

10.   The method of claim 1, further comprising the step of prompting the subscriber to issue the spoken utterance using one of a group consisting of a spoken menu generated by a text to speech translator, a recorded announcement of a menu, and a synthesized announcement of the menu.

11.   The method of claim 1, further comprising the steps of: transmitting, by the network, a signal to the subscriber in a data format not audibly recognizable by the subscriber; and converting the transmitted signal to an audible message recognizable to the subscriber using one of a text to speech translator, a recording of speech, and a speech synthesizer.

12.   The method of claim 11, wherein the signal transmitted by the network to the subscriber comprises one of the group consisting of an ADSI signal and a DTMF signal.

13.   The method of claim 1, wherein the action performed comprises transmitting, by the network, of a signal to a second network.

14.   The method of claim 1, wherein the method is performed by a speech recognition system, and the method further comprises the step of providing to the subscriber an ability to operatively toggle on and off the speech recognition system.

15.   The method of claim 1, wherein the system state database is located on a speech processing unit coupled to the network through one of the

group consisting a local communications office equipment, the Internet, a computer, a mobile phone, a headset, a handset, a base station, a set-top box, a personal digital assistant, an appliance, and a remote control, and wherein said step of comparing the spoken utterance is performed at the location of the system state database.

16. (Cancelled)

17. The method of claim 1, further comprising: inputting a key input, and wherein the step of performing the action comprises performing the action in accordance with the spoken utterance and the key input.

18. A communications system providing speech recognition functionality to a network, comprising:

a device coupled to the network and into which an utterance may be spoken by a user,

a system state database accessible to the network and defining a tree structure having a plurality of nodes, each respective node of said plural nodes representing a particular system state of a plurality of possible system states, each state comprising a plurality of possible steps in a call flow, including an always connected state in which a feature may be accessed even when a call is not in progress and being associated with a predetermined node-specific grammar for the respective node;

means for interpreting the user-spoken utterance;

means for comparing the interpreted spoken utterance to the predetermined grammar for the respective node corresponding to the particular system state to recognize the spoken utterance as corresponding to the predetermined grammar associated with the respective node; and

means for performing an action represented by the spoken utterance at the network when the spoken utterance has been recognized as corresponding to the predetermined grammar associated with the respective node, wherein the action activates a control sequence at the network for accessing a feature available on the network.

19. The communications system of claim 18, wherein the spoken utterance comprises one of a group consisting of a command to access a feature available at the network, and a spoken menu of available features at the network.

20. The communications system of claim 18, wherein the spoken utterance comprises a command to access a feature available at the network, the feature comprising one of a group consisting of call forwarding, hold, conferencing, voice-mail, call back, and caller-ID.

21. The communications system of claim 18, wherein said interpreting means comprises an utterance verification engine.

22. The communication system of claim 18, wherein said comparing means comprises a reference database which comprises the predetermined node-specific grammar associated with each respective node.

23. The communications system of claim 22, wherein the system state and reference databases are both maintained on a speech processing unit coupled to the network through one of a group consisting of a local communications office equipment, the Internet, a computer, a mobile phone, a headset, a handset, a base station, a set-top box, a personal digital assistant, an appliance, and a remote control.

24. The communications system of claim 22, wherein the node-specific grammar associated with each respective node comprises at least one of a group consisting of a word that is descriptive of the action to be performed, a synonym of said at least one word, and a globally-available word available at all of said plural nodes.

25. The communications system of claim 18, wherein the predetermined grammar for the particular node comprises grammar for multiple languages.

26. The communications system of claim 25, further comprising means for determining the language of the spoken utterance of the user, and a text-to-speech translator for translating communications from a network to the user in the determined language of the user.

27. The communications system of claim 18, further comprising means for offering the user a spoken menu of the predetermined grammar available at the respective node in the call flow.

28. The communications system of claim 27, further comprising means for receiving the requested spoken menu and at least a partial text menu of the available features.

29. The communications system of claim 18, further comprising means for transmitting, to the user, a signal in a data format not audibly recognizable by the user, a text to speech translator, and means for converting the transmitted signal to an audible message recognizable to the user using the text to speech translator.

30.   The communications system of claim 29, wherein the transmitted signal comprises one of a group consisting of an ADSI signal and a DTMF signal.

31.   The communications system of claim 18, wherein the means for performing an action comprises means for transmitting a signal transmitted between networks.

32.   The communications system of claim 18, further comprising means for toggling on and off the speech recognition and text-to-speech functionality.

33.   (Cancelled)

34.   The communications system of claim 18, further comprising:
        means for inputting a key input, and wherein the means for performing the action comprises performing the action in accordance with the spoken utterance and the key input.

IX.   EVIDENCE APPENDIX
None.

X.   RELATED PROCEEDINGS APPENDIX
None.